SA-WD200

SERVICE MANUAL

Ver 1.0 2001. 07

US Model
Canadian Model
AEP Model
UK Model
E Model

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 3 ohm loads, from 22 – 200 Hz; rated 250 watts, minimum RMS power, with no more than 0.8 % total harmonic distortion from 250 milliwatts to rated output.

System

Type
Active Subwoofer

Speaker unit
Woofer: 13.5 cm dia. ($5\,^{3}/_{8}$ in.), cone type

Continuous RMS output
US, Canadian model (0.8%) : 250 W
AEP, UK model (DIN) : 250 W
Other models (0.8%) : 250 W

Reproduction frequency range
22 Hz – 200 Hz

High frequency cut-off frequency
50 Hz – 200 Hz

Phase selector
NORMAL, REVERSE

Inputs

Input jacks
LINE IN: input pin jack
SPEAKER IN: input terminals (ELP plug 6P)

Output jacks
LINE OUT: output pin jack
SPEAKER OUT: output terminals

General

Power requirements
US, Canadian model : 120 V AC, 60 Hz
AEP, UK model : 220 - 230 V AC, 50/60 Hz
Other models : 110 - 120, 220 - 240 V AC, 50/60 Hz

Power consumption
50 W
1 W (Standby mode)

Dimensions
Approx. 165 × 450 × 425 mm
(w / h / d) ($6\,^{1}/_{2} \times 17\,^{3}/_{4} \times 16\,^{3}/_{4}$ in.)

Mass
16 kg (35 lb 4 oz)

Supplied accessories
Audio connecting cord
(1 phono plug – 1 phono plug) (1)
Speaker cords (1)

Design and specifications are subject to change without notice.

ACTIVE SUBWOOFER

9-873-218-01
2001G1600-1
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Sony Corporation
Home Audio Company
Shinagawa Tec Service Manual Production Group

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

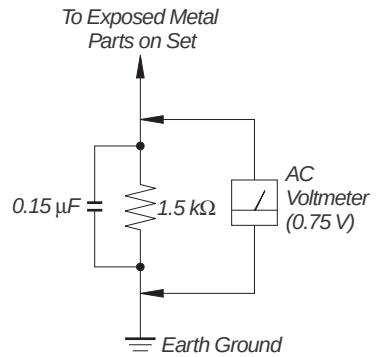


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

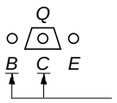
- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SECTION 1
DIAGRAMS

1-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ○ : Through hole.
- ▒▒▒ : Pattern from the side which enables seeing.
- Indication of transistor



These are omitted.

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

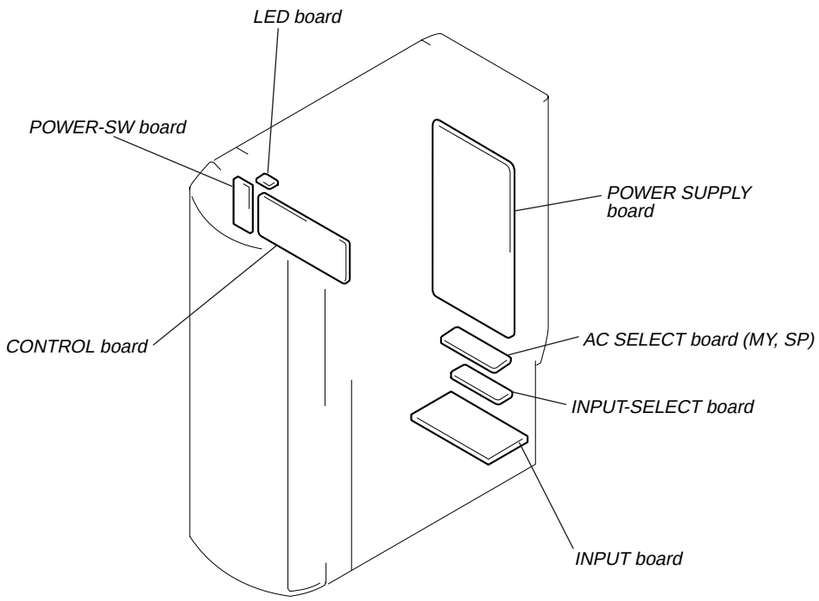
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- : nonflammable resistor
- : panel designation

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

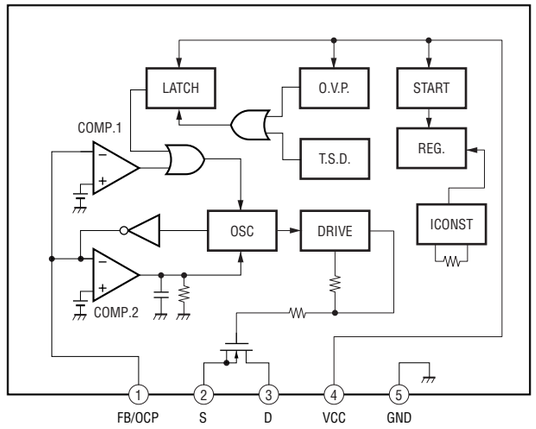
- : B+ Line
- : B– Line
- Voltages are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path
  : AUDIO
- Abbreviation
  CND : Canadian model
  MY : Malaysia model
  SP : Singapore model

- **Circuit Boards Location**

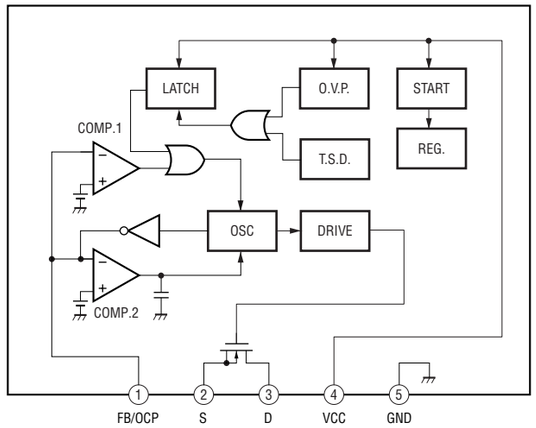


- **IC Block Diagrams**

IC901 STR-F6676 (AEP, UK, MY, SP)

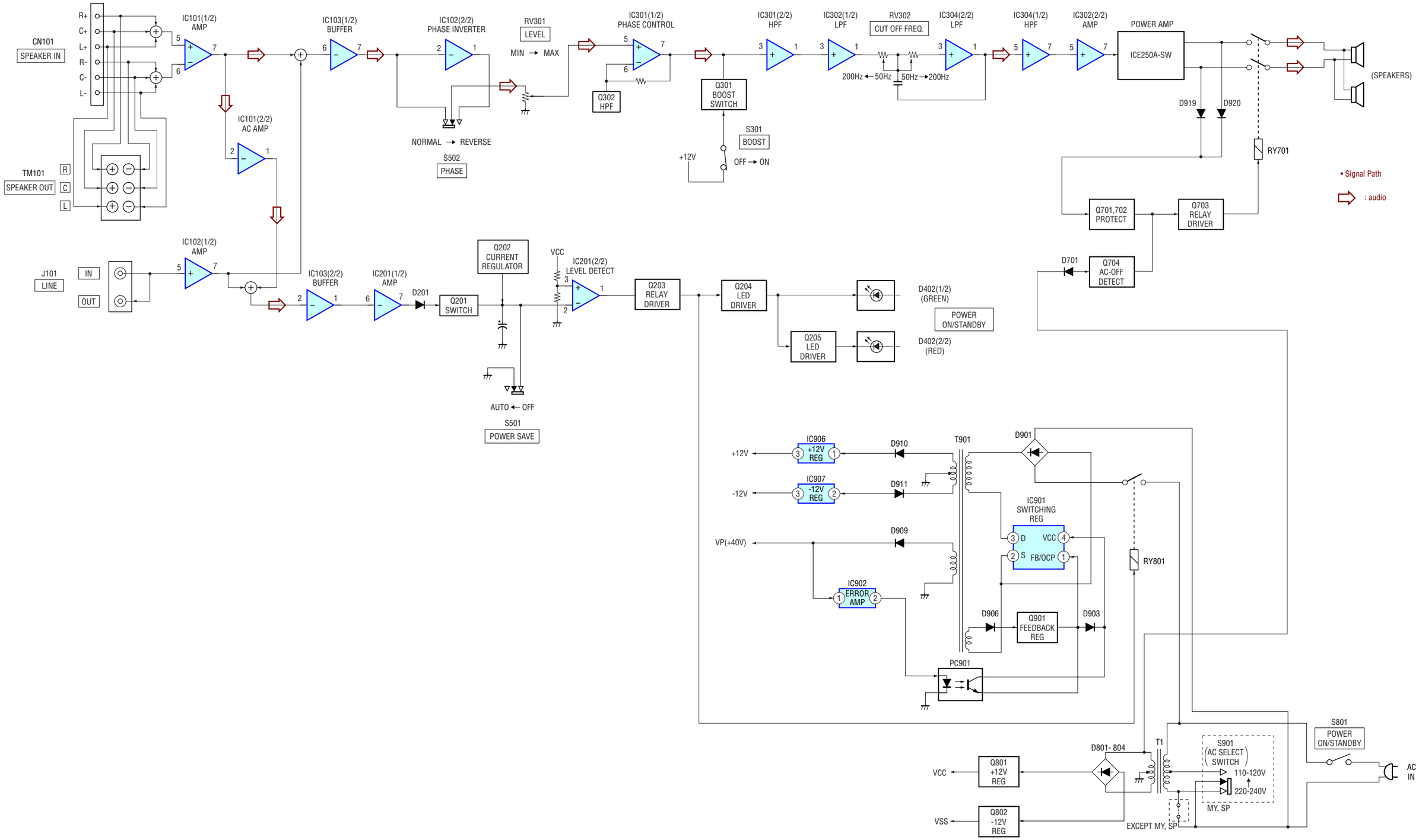


IC901 STR-F6426S (US, CND)

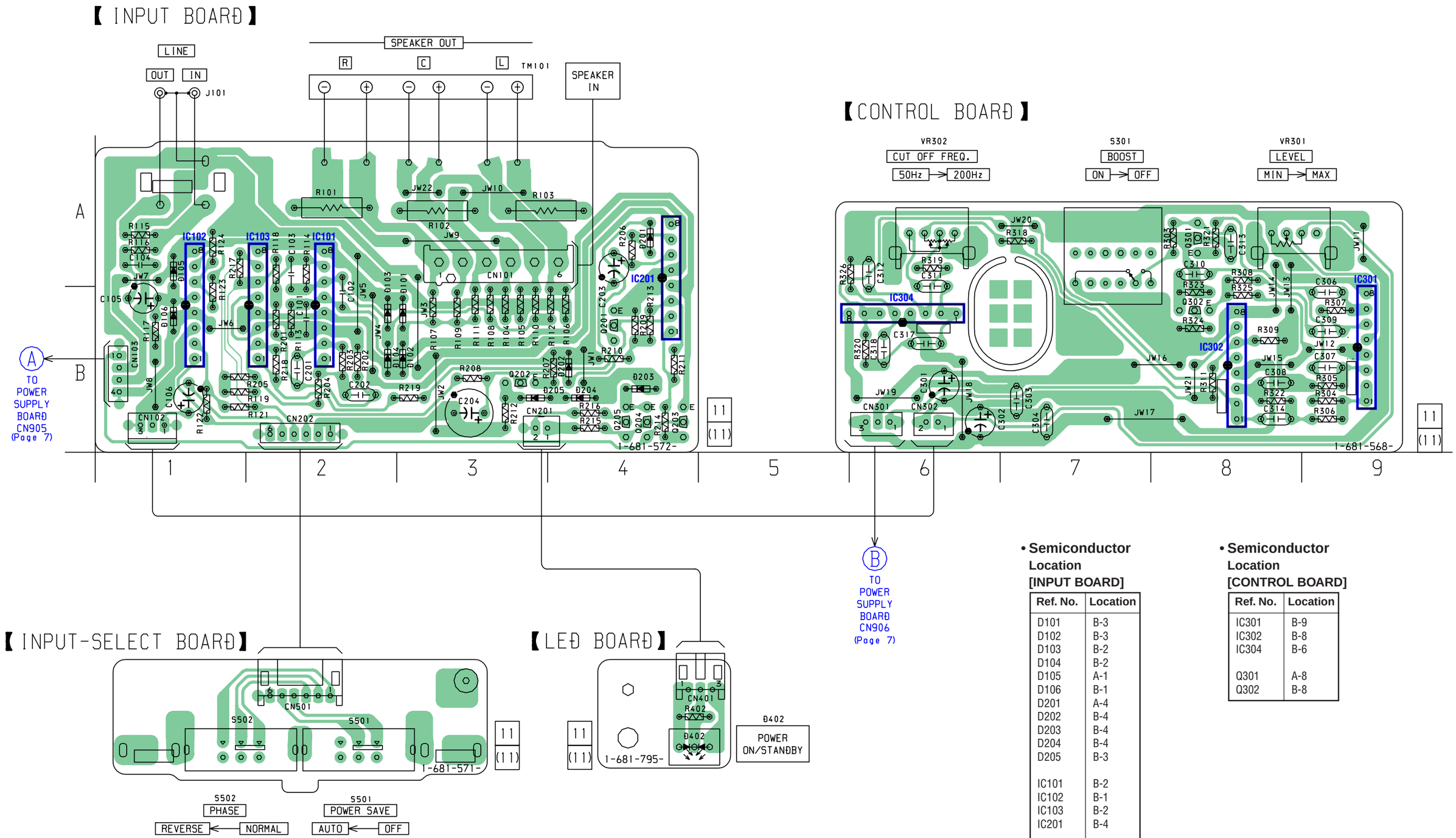


SA-WD200

1-2. BLOCK DIAGRAM



1-3. PRINTED WIRING BOARD — CONTROL SECTION — • See page 3 for Circuit Boards Location.



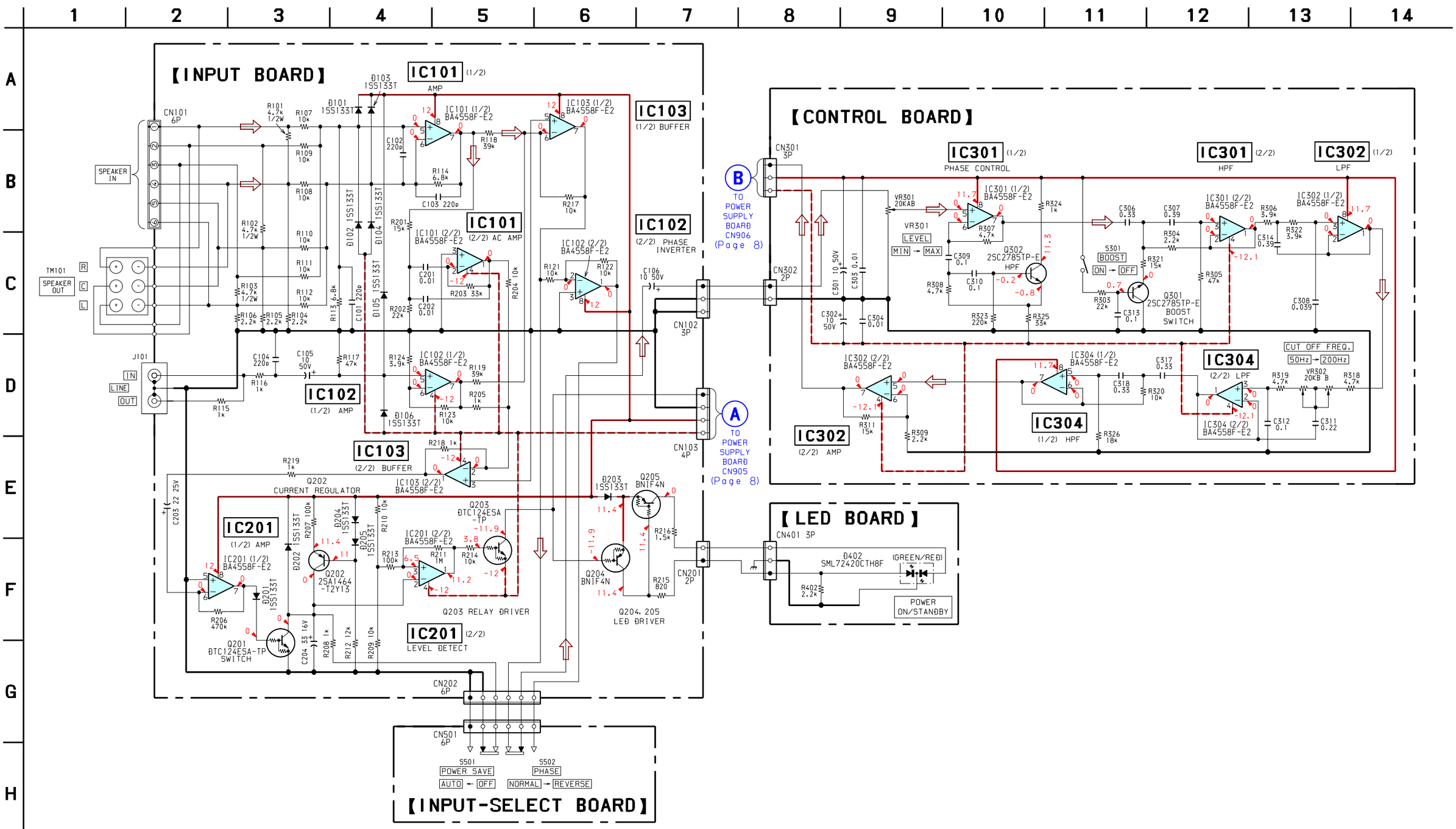
- **Semiconductor Location [INPUT BOARD]**

Ref. No.	Location
D101	B-3
D102	B-3
D103	B-2
D104	B-2
D105	A-1
D106	B-1
D201	A-4
D202	B-4
D203	B-4
D204	B-4
D205	B-3
IC101	B-2
IC102	B-1
IC103	B-2
IC201	B-4
Q201	B-4
Q202	B-3
Q203	B-4
Q204	B-4
Q205	B-4

- **Semiconductor Location [CONTROL BOARD]**

Ref. No.	Location
IC301	B-9
IC302	B-8
IC304	B-6
Q301	A-8
Q302	B-8

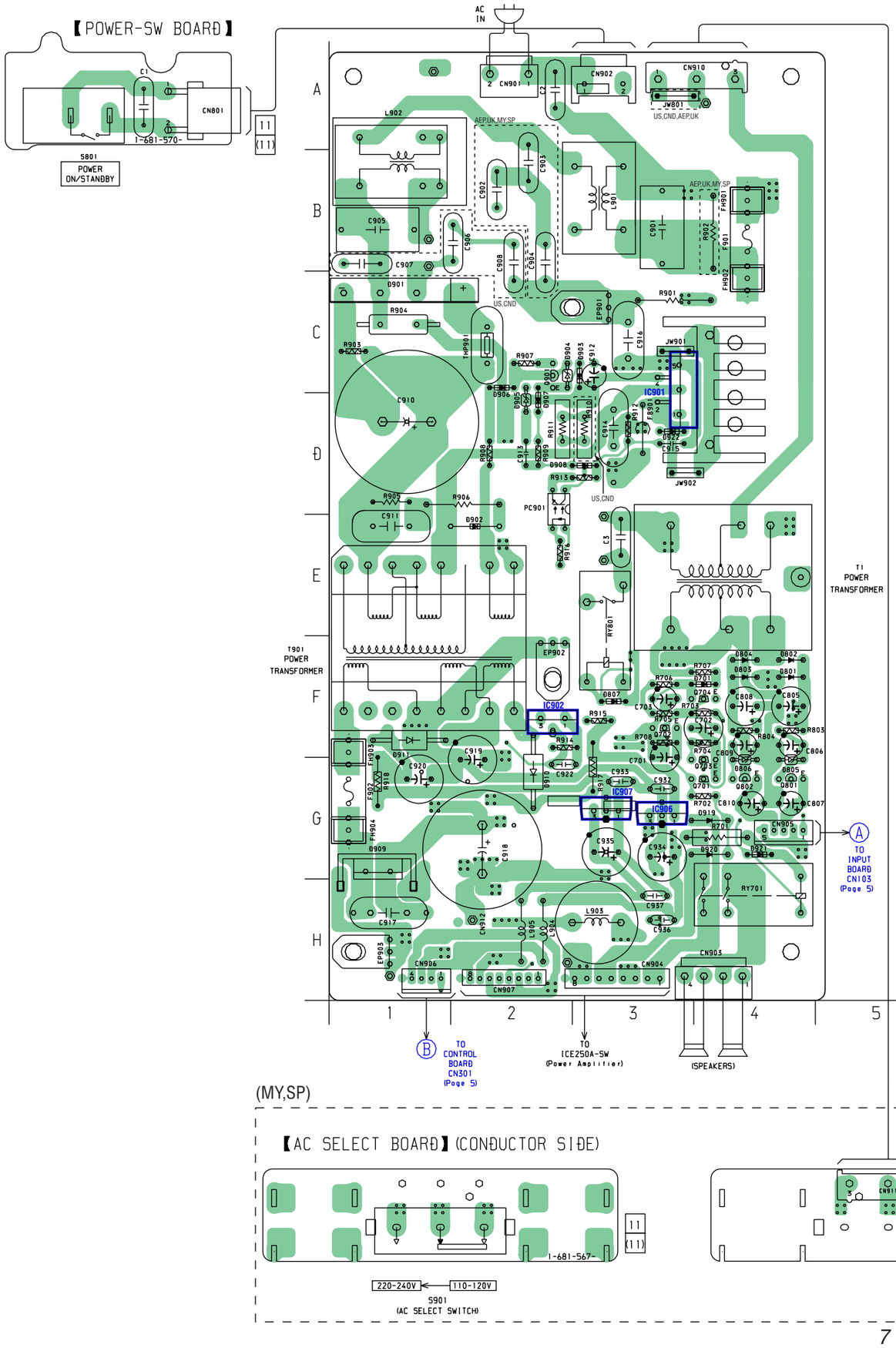
1-4. SCHEMATIC DIAGRAM — CONTROL SECTION —



1-5. PRINTED WIRING BOARD — POWER SECTION —

• See page 3 for Circuit Boards Location.

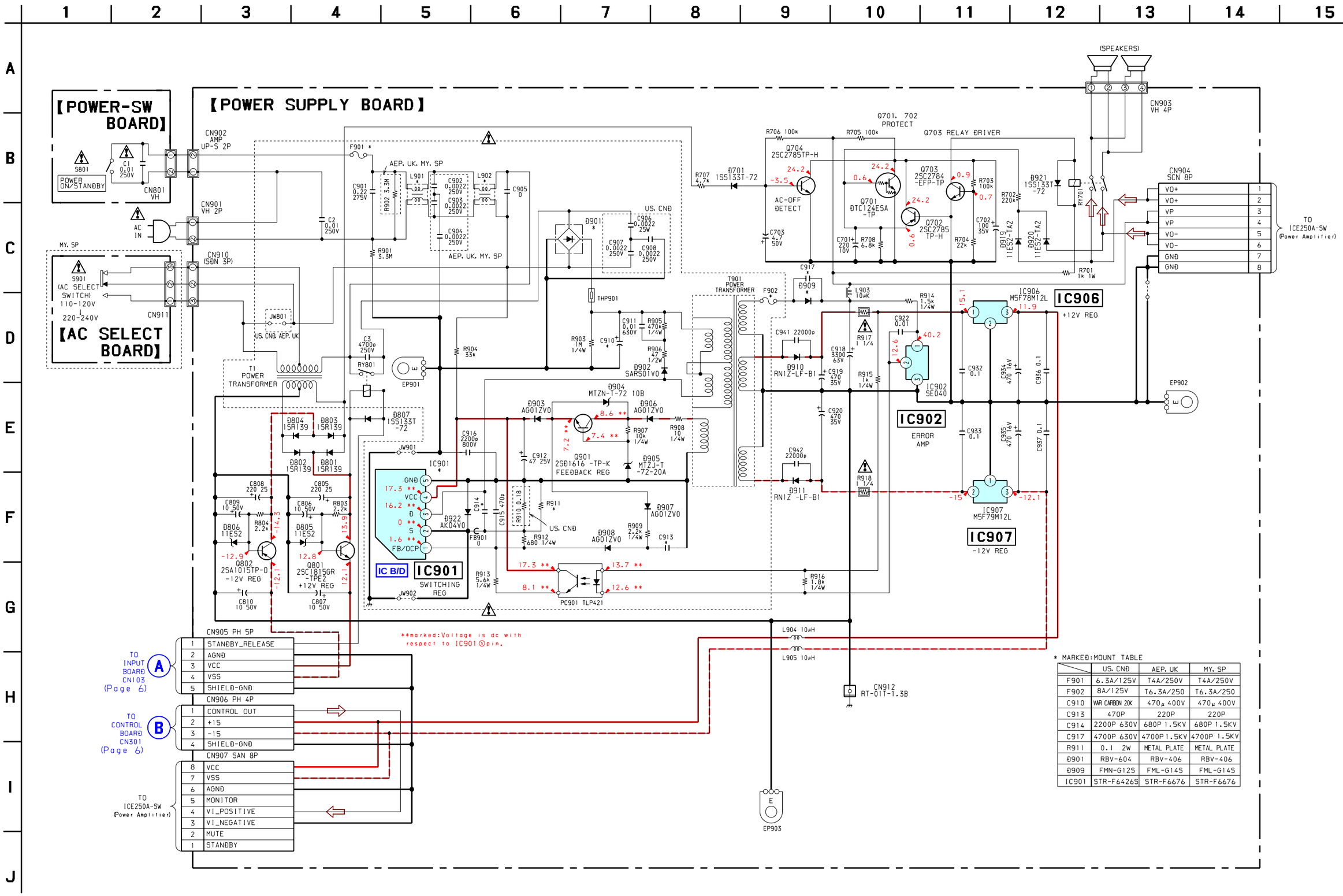
【POWER SUPPLY BOARD】(CONDUCTOR SIDE)



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D701	F-4	D911	F-1
D801	F-4	D919	G-4
D802	F-4	D920	G-4
D803	F-4	D921	G-4
D804	F-4	D922	D-3
D805	G-4		
D806	G-4	IC901	D-3
D807	F-3	IC902	F-2
D901	C-1	IC906	G-3
D902	E-2	IC907	G-3
D903	C-3		
D904	C-2	Q701	G-4
D905	D-2	Q702	F-3
D906	C-2	Q703	G-4
D907	D-2	Q704	F-4
D908	D-3	Q801	G-4
D909	G-1	Q802	G-4
D910	G-2	Q901	C-2

1-6. SCHEMATIC DIAGRAM — POWER SECTION — • See page 3 for IC Block Diagrams.



SECTION 2
EXPLODED VIEWS

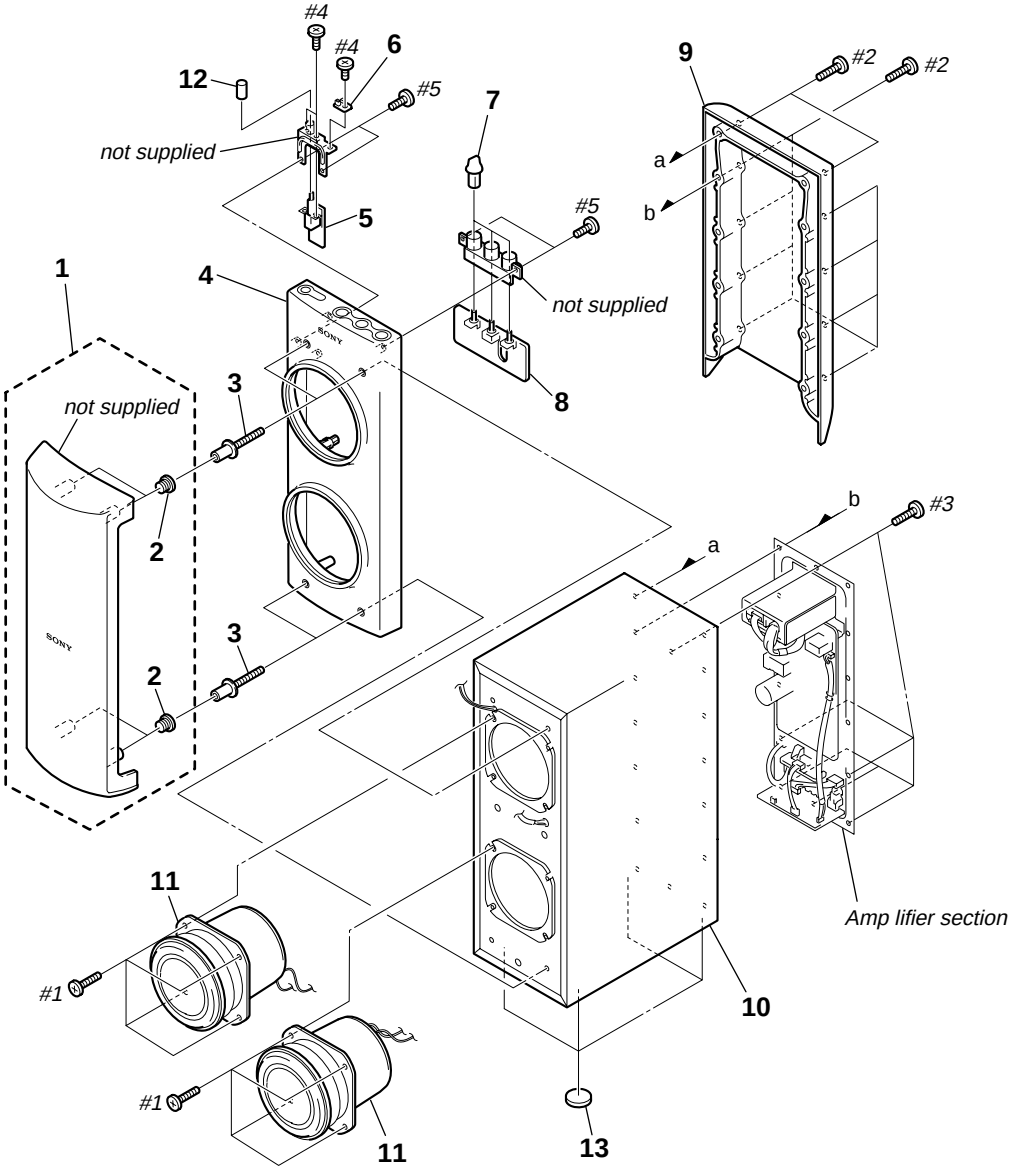
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  MY : Malaysia model
  SP : Singapore model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

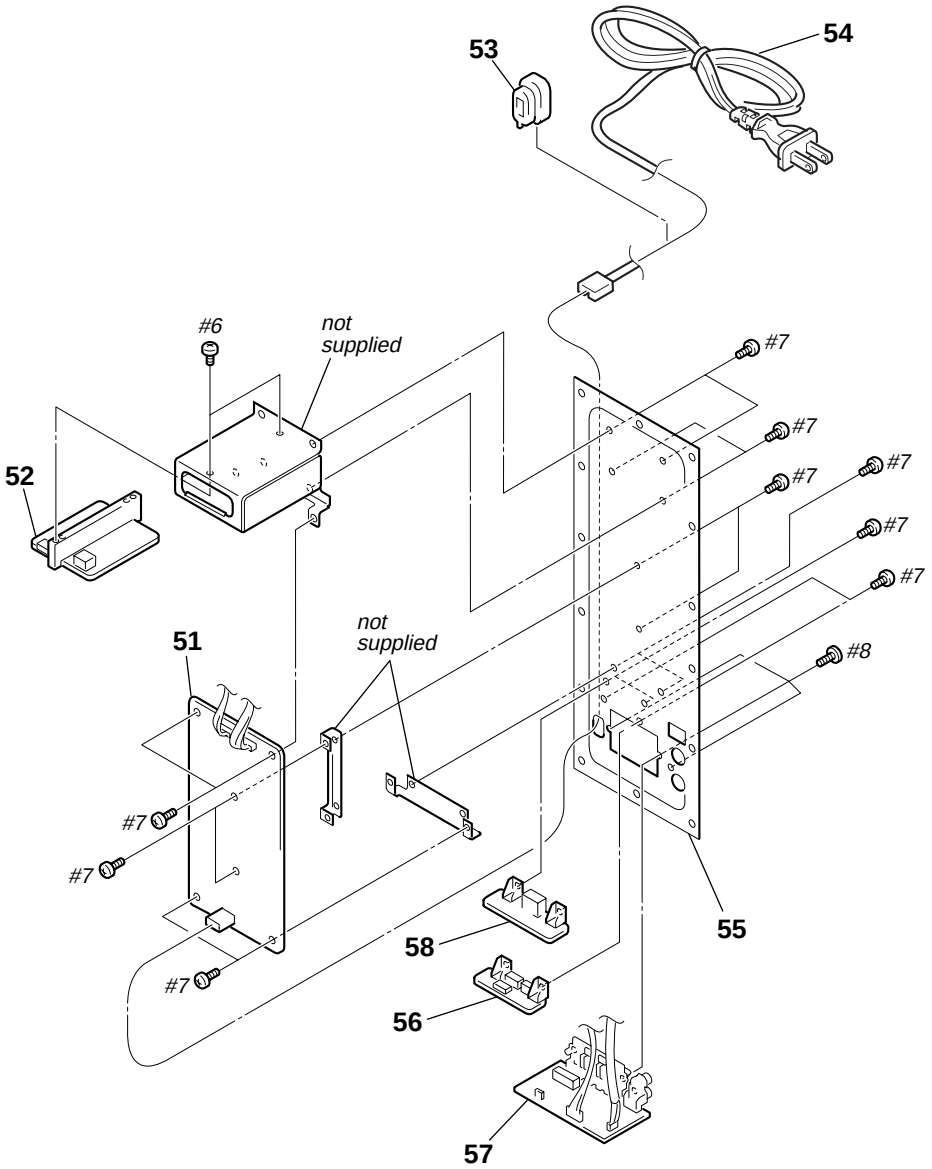
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

2-1. SA-WD200 (OVERALL SECTION)



Ref. No.	Part No.	Description	Remarks
1	X-4954-011-1	FRAME ASSY, GRILLE	
2	4-210-830-01	CATCHER	
3	4-235-831-01	SCREW, ORNAMENT	
4	X-4954-010-1	PANEL ASSY, FRONT	
5	1-681-570-11	POWER-SW BOARD	
6	1-681-795-11	LED BOARD	
7	4-236-589-01	KNOB	
8	A-4726-994-A	CONTROL BOARD, COMPLETE	
9	4-235-818-01	COVER, DUCT	
10	A-4735-249-A	CABINET ASSY, SPEAKER	
11	1-544-941-11	SPEAKER (13.5cm)	
12	4-236-738-01	BUTTON	
13	4-237-747-01	FOOT	
#1	7-685-165-01	SCREW +PTP 4X25 TYPE1	
#2	7-685-165-19	SCREW +P4X25 TYPE2 NON-SLIT	
#3	7-685-164-19	SCREW +P4X20 TYPE2 NON-SLIT	
#4	7-685-146-19	SCREW +P3X8 TYPE2 NON-SLIT	
#5	7-682-551-09	SCREW +B3X14	

2-2. SA-WD200 (AMPLIFIER BLOCK SECTION)



Ref. No.	Part No.	Description	Remarks
51	A-4726-992-A	POWER SUPPLY BOARD, COMPLETE (US, CND)	
51	A-4726-999-A	POWER SUPPLY BOARD, COMPLETE (AEP, UK)	
51	A-4727-000-A	POWER SUPPLY BOARD, COMPLETE (MY, SP)	
52	6-700-752-01	IC ICE250A-SW	
* 53	3-703-244-00	BUSHING (2104), CORD	
⚠54	1-696-570-21	CORD, POWER (UK)	
⚠54	1-751-520-11	CORD, POWER (AEP, MY, SP)	
⚠54	1-783-820-11	CORD, POWER (US, CND)	

Ref. No.	Part No.	Description	Remarks
55	4-235-820-01	PANEL, REAR (EXCEPT MY, SP)	
55	4-235-820-11	PANEL, REAR (MY, SP)	
56	1-681-571-11	INPUT-SELECT BOARD	
57	A-4726-993-A	INPUT BOARD, COMPLETE	
58	1-681-567-11	AC SELECT BOARD (MY, SP)	
#6	7-682-161-09	SCREW +P4X8	
#7	7-685-146-29	SCREW +B3X8 TYPE2 SLIT	
#8	7-685-646-79	SCREW +P3X8 TYPE2 NON-SLIT	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 3
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- Abbreviation
  CND : Canadian model
  MY : Malaysia model
  SP : Singapore model
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remarks
	1-681-567-11	AC SELECT BOARD (MY, SP)			
		**********			
		< CONNECTOR >			
CN911	1-564-687-11	PIN, CONNECTOR 3P			
		< SWITCH >			
S901	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (110-120V → 220-240V) (MY, SP)			
**********					
	A-4726-994-A	CONTROL BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-126-964-11	ELECT	10uF	20.00% 50V	
C302	1-126-964-11	ELECT	10uF	20.00% 50V	
C303	1-131-679-31	FILM	0.01uF	5% 50V	
C304	1-131-679-31	FILM	0.01uF	5% 50V	
C306	1-131-698-31	FILM	0.33uF	5% 50V	
C307	1-131-699-11	FILM	0.39uF	5% 50V	
C308	1-131-687-31	FILM	0.039uF	5% 50V	
C309	1-136-165-00	FILM	0.1uF	5% 50V	
C310	1-136-165-00	FILM	0.1uF	5% 50V	
C311	1-131-696-11	FILM	0.22uF	5% 50V	
C312	1-136-165-00	FILM	0.1uF	5% 50V	
C313	1-136-165-00	FILM	0.1uF	5% 50V	
C314	1-131-699-11	FILM	0.39uF	5% 50V	
C317	1-131-698-31	FILM	0.33uF	5% 50V	
C318	1-131-698-31	FILM	0.33uF	5% 50V	
		< CONNECTOR >			
* CN301	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN302	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< IC >			
IC301	8-759-909-71	IC BA4558F-E2			
IC302	8-759-909-71	IC BA4558F-E2			
IC304	8-759-909-71	IC BA4558F-E2			
		< TRANSISTOR >			
Q301	8-729-119-78	TRANSISTOR	2SC2785TP-E		
Q302	8-729-119-78	TRANSISTOR	2SC2785TP-E		

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R303	1-249-433-11	CARBON	22K	5% 1/4W	
R304	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R305	1-249-437-11	CARBON	47K	5% 1/4W	
R306	1-249-424-11	CARBON	3.9K	5% 1/4W	F
R307	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R308	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R309	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R311	1-249-431-11	CARBON	15K	5% 1/4W	
R318	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R319	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R320	1-249-429-11	CARBON	10K	5% 1/4W	
R321	1-249-431-11	CARBON	15K	5% 1/4W	
R322	1-249-424-11	CARBON	3.9K	5% 1/4W	F
R323	1-247-887-00	CARBON	220K	5% 1/4W	
R324	1-249-417-11	CARBON	1K	5% 1/4W	F
R325	1-249-435-11	CARBON	33K	5% 1/4W	
R326	1-249-432-11	CARBON	18K	5% 1/4W	
		< SWITCH >			
S301	1-771-632-11	SWITCH, ROTARY (BOOST ON/OFF)			
		< VARIABLE RESISTOR >			
VR301	1-225-826-11	RES, VAR, CARBON 20K (LEVEL MIN → MAX)			
VR302	1-227-389-11	RES, VAR CARBON20K/20K (US,CND) (CUT OFF FREQ. 50Hz → 200Hz)			
**********					
	A-4726-993-A	INPUT BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-102-978-00	CERAMIC	220PF	5% 50V	
C102	1-102-978-00	CERAMIC	220PF	5% 50V	
C103	1-102-978-00	CERAMIC	220PF	5% 50V	
C104	1-102-978-00	CERAMIC	220PF	5% 50V	
C105	1-126-964-11	ELECT	10uF	20.00% 50V	
C106	1-126-964-11	ELECT	10uF	20.00% 50V	
C201	1-162-306-11	CAP, CERAMIC	0.01uF	20.00% 16V	
C202	1-162-306-11	CAP, CERAMIC	0.01uF	20.00% 16V	
C203	1-104-662-81	CAP, ELECT	22uF	20.00% 25V	
C204	1-104-661-81	CAP, ELECT	33uF	20.00% 16V	
		< CONNECTOR >			
CN101	1-757-821-11	LEAD (WITH CONNECTOR) (SPEAKER IN)			
* CN102	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CN201	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			

INPUT INPUT-SELECT LED POWER SUPPLY

Ref. No.	Part No.	Description			Remarks
		< DIODE >			
D101	8-719-991-33	DIODE 1SS133T-77			
D102	8-719-991-33	DIODE 1SS133T-77			
D103	8-719-991-33	DIODE 1SS133T-77			
D104	8-719-991-33	DIODE 1SS133T-77			
D105	8-719-991-33	DIODE 1SS133T-77			
D106	8-719-991-33	DIODE 1SS133T-77			
D201	8-719-991-33	DIODE 1SS133T-77			
D202	8-719-991-33	DIODE 1SS133T-77			
D203	8-719-991-33	DIODE 1SS133T-77			
D204	8-719-991-33	DIODE 1SS133T-77			
D205	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC101	8-759-909-71	IC BA4558F-E2			
IC102	8-759-909-71	IC BA4558F-E2			
IC103	8-759-909-71	IC BA4558F-E2			
IC201	8-759-909-71	IC BA4558F-E2			
		< JACK >			
J101	1-815-749-11	JACK, PIN 2P (LINE IN/OUT)			
		< TRANSISTOR >			
Q201	8-729-029-86	TRANSISTOR	DTC124ESA-TP		
Q202	8-729-119-54	TRANSISTOR	2SA1464-T2Y13		
Q203	8-729-029-86	TRANSISTOR	DTC124ESA-TP		
Q204	8-729-029-40	TRANSISTOR	BN1F4M		
Q205	8-729-029-40	TRANSISTOR	BN1F4M		
		< RESISTOR >			
R101	1-260-107-11	CARBON	4.7K	5% 1/2W	
R102	1-260-107-11	CARBON	4.7K	5% 1/2W	
R103	1-260-107-11	CARBON	4.7K	5% 1/2W	
R104	1-249-421-11	CARBON	2.2K	5% 1/4W	
R105	1-249-421-11	CARBON	2.2K	5% 1/4W	
R106	1-249-421-11	CARBON	2.2K	5% 1/4W	
R107	1-249-429-11	CARBON	10K	5% 1/4W	
R108	1-249-429-11	CARBON	10K	5% 1/4W	
R109	1-249-429-11	CARBON	10K	5% 1/4W	
R110	1-249-429-11	CARBON	10K	5% 1/4W	
R111	1-249-429-11	CARBON	10K	5% 1/4W	
R112	1-249-429-11	CARBON	10K	5% 1/4W	
R113	1-249-427-11	CARBON	6.8K	5% 1/4W	
R114	1-249-427-11	CARBON	6.8K	5% 1/4W	
R115	1-249-417-11	CARBON	1K	5% 1/4W	
R116	1-249-417-11	CARBON	1K	5% 1/4W	
R117	1-249-437-11	CARBON	47K	5% 1/4W	
R118	1-249-436-11	CARBON	39K	5% 1/4W	
R119	1-249-436-11	CARBON	39K	5% 1/4W	
R121	1-249-429-11	CARBON	10K	5% 1/4W	
R122	1-249-429-11	CARBON	10K	5% 1/4W	
R123	1-249-429-11	CARBON	10K	5% 1/4W	
R124	1-249-424-11	CARBON	3.9K	5% 1/4W	
R201	1-249-431-11	CARBON	15K	5% 1/4W	
R202	1-249-433-11	CARBON	22K	5% 1/4W	
R203	1-249-435-11	CARBON	33K	5% 1/4W	
R204	1-249-429-11	CARBON	10K	5% 1/4W	
R205	1-249-417-11	CARBON	1K	5% 1/4W	
R206	1-247-895-00	CARBON	470K	5% 1/4W	
R207	1-249-441-11	CARBON	100K	5% 1/4W	
R208	1-249-417-11	CARBON	1K	5% 1/4W	
R209	1-249-429-11	CARBON	10K	5% 1/4W	
R210	1-249-429-11	CARBON	10K	5% 1/4W	
R211	1-247-903-00	CARBON	1M	5% 1/4W	
R212	1-249-430-11	CARBON	12K	5% 1/4W	
R213	1-249-441-11	CARBON	100K	5% 1/4W	
R214	1-249-429-11	CARBON	10K	5% 1/4W	
R215	1-249-416-11	CARBON	820	5% 1/4W	
R216	1-249-419-11	CARBON	1.5K	5% 1/4W	
R217	1-249-429-11	CARBON	10K	5% 1/4W	
R218	1-249-417-11	CARBON	1K	5% 1/4W	
R219	1-249-417-11	CARBON	1K	5% 1/4W	
		< TERMINAL >			
TM101	1-537-923-11	TERMINAL BOARD (SPEAKER) (6P)			(SPEAKER OUT R/C/L)
**********					
	1-681-571-11	INPUT-SELECT BOARD			
		**********			
		< CONNECTOR >			
CN501	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P			
		< SWITCH >			
S501	1-570-707-31	SWITCH, SLIDE (POWER SAVE OFF → AUTE)			
S502	1-570-707-31	SWITCH, SLIDE			(PHASE NORMAL → REVERSE)
**********					
	1-681-795-11	LED BOARD			
		**********			
		< CONNECTOR >			
* CN401	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
		< DIODE >			
D402	8-719-061-31	DIODE SML72420CTH8F			(POWER ON/STANDBY)
		< RESISTOR >			
R402	1-249-421-11	CARBON	2.2K	5% 1/4W	F
**********					
	A-4726-992-A	POWER SUPPLY BOARD, COMPLETE (US, CND)			
		**********			
	A-4726-999-A	POWER SUPPLY BOARD, COMPLETE (AEP, UK)			
		**********			
	A-4727-000-A	POWER SUPPLY BOARD, COMPLETE (MY, SP)			
		**********			
		< CAPACITOR >			
⚠C2	1-113-925-11	CERAMIC	0.01uF	20.00% 250V	
⚠C3	1-113-924-11	CERAMIC	0.0047uF	20.00% 250V	
C701	1-126-934-11	ELECT	220uF	20.00% 10V	
C702	1-126-948-11	ELECT	100uF	20.00% 35V	
C703	1-126-963-11	ELECT	4.7uF	20.00% 50V	

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Ref. No.	Part No.	Description			Remarks
C805	1-104-666-11	ELECT	220uF	20.00%	25V
C806	1-126-964-11	ELECT	10uF	20.00%	50V
C807	1-126-964-11	ELECT	10uF	20.00%	50V
C808	1-104-666-11	ELECT	220uF	20.00%	25V
C809	1-126-964-11	ELECT	10uF	20.00%	50V
C810	1-126-964-11	ELECT	10uF	20.00%	50V
⚠C901	1-117-916-11	FILM	0PF		0V
⚠C902	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (AEP, UK, MY, SP)
⚠C903	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (AEP, UK, MY, SP)
⚠C904	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (AEP, UK, MY, SP)
⚠C905	1-117-916-11	CAP, METALIZED FILM	0PF		0V
⚠C906	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (US, CND)
⚠C907	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (US, CND)
⚠C908	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (US, CND)
⚠C910	1-165-639-11	ELECT	470uF	20%	400V (AEP, UK, MY, SP)
⚠C910	1-137-994-11	ELECT	820UF	20%	200V
⚠C911	1-165-706-91	FILM	0.01uF	3%	630V
⚠C912	1-126-947-11	ELECT	47uF	20.00%	25V
⚠C913	1-162-286-31	CERAMIC	220PF	10%	50V (AEP, UK, MY, SP)
⚠C913	1-162-290-31	CERAMIC	470PF	10%	50V (US, CND)
⚠C914	1-125-893-11	FILM	680PF	3.00%	1.5KV (AEP, UK, MY, SP)
⚠C914	1-136-555-11	FILM	0.0022uF	5.00%	630V (US, CND)
⚠C915	1-162-290-31	CERAMIC	470PF	10%	50V (AEP, UK, MY, SP)
⚠C916	1-137-751-81	FILM	2200PF	3%	800V
C917	1-117-832-11	FILM	4700PF	3.00%	1.5KV (AEP, UK, MY, SP)
C917	1-136-559-11	FILM	0.0047uF	5.00%	630V (US, CND)
C918	1-135-516-11	ELECT	3300uF	20%	63V
C919	1-126-951-11	ELECT	470uF	20.00%	35V
C920	1-126-951-11	ELECT	470uF	20.00%	35V
C921	1-136-165-00	FILM	0.1uF	5.00%	50V
C922	1-136-153-00	FILM	0.01uF	5%	50V
C932	1-136-165-00	FILM	0.1uF	5.00%	50V
C933	1-136-165-00	FILM	0.1uF	5.00%	50V
C934	1-126-935-11	ELECT	470uF	20.00%	16V
C935	1-126-935-11	ELECT	470uF	20.00%	16V
C936	1-136-165-00	FILM	0.1uF	5.00%	50V
C937	1-136-165-00	FILM	0.1uF	5.00%	50V
		< CONNECTOR >			
CN901	1-564-321-00	PIN, CONNECTOR 2P			
* CN902	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
* CN903	1-564-241-11	PIN, CONNECTOR (B4P-VH) 4P			
CN904	1-757-829-11	LEAD (WITH CONNECTOR)			
CN905	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
* CN906	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN907	1-757-828-11	LEAD (WITH CONNECTOR)			
CN910	1-757-829-11	LEAD (WITH CONNECTOR)			
* CN912	1-564-187-00	PIN, CONNECTOR			
		< DIODE >			
D701	8-719-911-19	DIODE 1SS133T-72			
D801	8-719-200-82	DIODE 1SR139-100			
D802	8-719-200-82	DIODE 1SR139-100			
D803	8-719-200-82	DIODE 1SR139-100			
D804	8-719-200-82	DIODE 1SR139-100			
D805	8-719-200-82	DIODE 11ES2			
D806	8-719-200-82	DIODE 11ES2			
D807	8-719-911-19	DIODE 1SS133T-72			
⚠D901	8-719-084-58	DIODE RBV-406 (AEP, UK, MY, SP)			
⚠D901	8-719-022-92	DIODE RBV-604 (US, CND)			
⚠D902	8-719-080-26	DIODE SARS01V0			
⚠D903	8-719-075-11	DIODE AG01ZV0			
⚠D904	8-719-110-17	DIODE MTZN-T-72-10B			
⚠D905	8-719-079-18	DIODE MTZJ-T-72-20A			
⚠D906	8-719-075-11	DIODE AG01ZV0			
⚠D907	8-719-075-11	DIODE AG01ZV0			
⚠D908	8-719-075-11	DIODE AG01ZV0			
D909	8-719-049-98	DIODE FML-G14S (AEP, UK, MY, SP)			
D909	8-719-058-38	DIODE FMN-G12S (US, CND)			
D910	8-719-064-47	DIODE RN1Z-LF-B1			
D911	8-719-064-47	DIODE RN1Z-LF-B1			
D919	8-719-200-82	DIODE 11ES2-TA2			
D920	8-719-200-82	DIODE 11ES2-TA2			
D921	8-719-911-19	DIODE 1SS133T-72			
⚠D922	8-719-043-76	DIODE AK04V0			
		< EARTH >			
EP901	1-537-770-11	TERMINAL BOARD, GROUND			
EP902	1-537-770-11	TERMINAL BOARD, GROUND			
EP903	1-537-770-11	TERMINAL BOARD, GROUND			
		< FUSE >			
⚠F901	1-532-504-31	FUSE 4A/250V (AEP, UK, MY, SP)			
⚠F901	1-532-594-11	FUSE, GLASS TUBE 6.3A/25V (US, CND)			
⚠F902	1-532-506-31	FUSE 6.3A/250V (AEP, UK, MY, SP)			
⚠F902	1-576-075-11	FUSE, GLASS TUBE 8A/125V (US, CND)			
		< FERRITE BEAD >			
⚠FB901	1-412-473-21	INDUCTOR 0uH			
		< FUSE HOLDER >			
FH901	1-533-233-11	HOLDER, FUSE			
FH902	1-533-233-11	HOLDER, FUSE			
FH903	1-533-233-11	HOLDER, FUSE			
FH904	1-533-233-11	HOLDER, FUSE			

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POWER SUPPLY POWER-SW

Ref. No.	Part No.	Description				Remarks
		< IC >				
⚠IC901	8-749-017-79	IC STR-F6676 (AEP, UK, MY, SP)				
⚠IC901	6-700-162-01	IC STR-F6426S (US, CND)				
IC902	8-749-019-49	IC SE040				
IC906	8-759-604-39	IC M5F78M12L				
IC907	8-759-604-45	IC M5F79M12L				
		< COIL >				
⚠L901	1-419-612-11	COIL, LINE FILTER				
⚠L902	1-419-612-11	COIL, LINE FILTER				
L903	1-419-667-11	INDUCTOR	10uH			
L904	1-408-117-00	INDUCTOR	10uH			
L905	1-408-117-00	INDUCTOR	10uH			
		< PHOTO COUPLER >				
⚠PC901	8-749-019-04	PHOTO COUPLER TLP421				
		< TRANSISTOR >				
Q701	8-729-029-86	TRANSISTOR	DTC124ESA-TP			
Q702	8-729-119-78	TRANSISTOR	2SC2785TP-H			
Q703	8-729-178-42	TRANSISTOR	2SC2784-EFP-TP			
Q704	8-729-119-78	TRANSISTOR	2SC2785TP-H			
Q801	8-729-281-53	TRANSISTOR	2SC1815GR-TPE2			
Q802	8-729-231-12	TRANSISTOR	2SA1015TP-O			
⚠Q901	8-729-111-29	TRANSISTOR	2SD1616-TP-K			
		< RESISTOR >				
R701	1-215-869-11	METAL OXIDE	1K	5%	1W	
R702	1-247-887-00	CARBON	220K	5%	1/4W	
R703	1-249-441-11	CARBON	100K	5%	1/4W	
R704	1-249-433-11	CARBON	22K	5%	1/4W	
R705	1-249-441-11	CARBON	100K	5%	1/4W	
R706	1-249-441-11	CARBON	100K	5%	1/4W	
R707	1-249-425-11	CARBON	4.7K	5%	1/4W	
R708	1-249-427-11	CARBON	6.8K	5%	1/4W	
R803	1-249-421-11	CARBON	2.2K	5%	1/4W	
R804	1-249-421-11	CARBON	2.2K	5%	1/4W	
⚠R901	1-202-725-00	SOLID	3.3M	10%	1/2W	
⚠R902	1-202-725-51	RES, SOLID	3.3M	10.00%	1/2W	
⚠R903	1-247-903-00	CARBON	1M	5%	1/4W	
⚠R904	1-215-901-00	METAL OXIDE	33K	5%	2W	
⚠R905	1-247-895-00	CARBON	470K	5%	1/4W	
⚠R906	1-260-083-11	CARBON	47	5%	1/2W	
⚠R907	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R908	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R909	1-249-421-11	CARBON	2.2K	5%	1/4W	F
⚠R910	1-244-317-71	METAL	0.18	5%	2W	(US, CND)
⚠R911	1-244-398-71	RES, METAL PLATE (AEP, UK, MY, SP)				
⚠R911	1-243-661-71	METAL	0.1	5%	2W	(US, CND)
⚠R912	1-249-415-11	CARBON	680	5%	1/4W	F
⚠R913	1-249-426-11	CARBON	5.6K	5%	1/4W	
R914	1-249-419-11	CARBON	1.5K	5%	1/4W	
R915	1-249-417-11	CARBON	1K	5%	1/4W	
R916	1-249-420-11	CARBON	1.8K	5%	1/4W	
⚠R917	1-249-381-11	CARBON	1	5%	1/4W	F
⚠R918	1-249-381-11	CARBON	1	5%	1/4W	F

Ref. No.	Part No.	Description				Remarks
		< RELAY >				
RY701	1-515-920-11	RELAY (24V)				
⚠RY801	1-755-276-11	RELAY, POWER				
		< TRANSFORMER >				
⚠T1	1-437-234-11	POWER TRANSFORMER (US, CND)				
⚠T1	1-437-235-11	POWER TRANSFORMER (AEP, UK)				
⚠T1	1-437-237-12	POWER TRANSFORMER (MY, SP)				
⚠T901	1-437-232-11	TRANSFORMER, POWER (US, CND)				
⚠T901	1-437-233-11	TRANSFORMER, HIGH-FREQUENCY				(AEP, UK, MY, SP)
		< THERMISTOR (POSITIVE) >				
THP901	1-803-916-11	THERMISTOR, NTC				
**********						
	1-681-570-11	POWER-SW BOARD				
		**********				
		< CAPACITOR >				
⚠C1	1-113-925-11	CERAMIC	0.01uF	20.00%	250V	
		< CONNECTOR >				
* CN801	1-770-314-11	PIN, CONNECTOR 2P				
		< SWITCH >				
⚠S801	1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY)				(POWER ON/STANDBY)
**********						
		MISCELLANEOUS				
		**********				
11	1-544-941-11	SPEAKER (13.5cm)				
⚠54	1-696-570-21	CORD, POWER (UK)				
⚠54	1-751-520-11	CORD, POWER (AEP, MY, SP)				
⚠54	1-783-820-11	CORD, POWER (US, CND)				
		ACCESSORIES & PACKING MATERIALS				
		**********				
⚠	1-569-008-21	ADAPTOR, CONVERSION 2P (MY, SP)				
	1-769-329-21	CORD, CONNECTION (PIN-PIN)				
	1-823-331-11	CORD, CONNECTION (SPEAKER)				
	3-550-458-00	LABEL, CAUTION, POWER SELECTOR (MY, SP)				
	4-236-701-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH)				
	4-236-701-21	MANUAL, INSTRUCTION (AEP)				(GERMAN, SPANISH)
	4-236-701-31	MANUAL, INSTRUCTION (AEP)				(DUTCH, SWEDISH)
	4-236-701-41	MANUAL, INSTRUCTION (AEP)				(ITALIAN, POLISH)
	4-236-701-51	MANUAL, INSTRUCTION (MY,SP)				(SPANISH, CHINESE)
	4-236-701-61	MANUAL, INSTRUCTION (AEP)				(PORTUGUESE, RUSSIAN)
	4-236-701-71	MANUAL, INSTRUCTION (AEP)				(FINNISH, DANISH)

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MEMO

REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2001.07	New